



Wetland Mitigation: Better Targeting for Improved Outcomes

May 2015 Snapshots

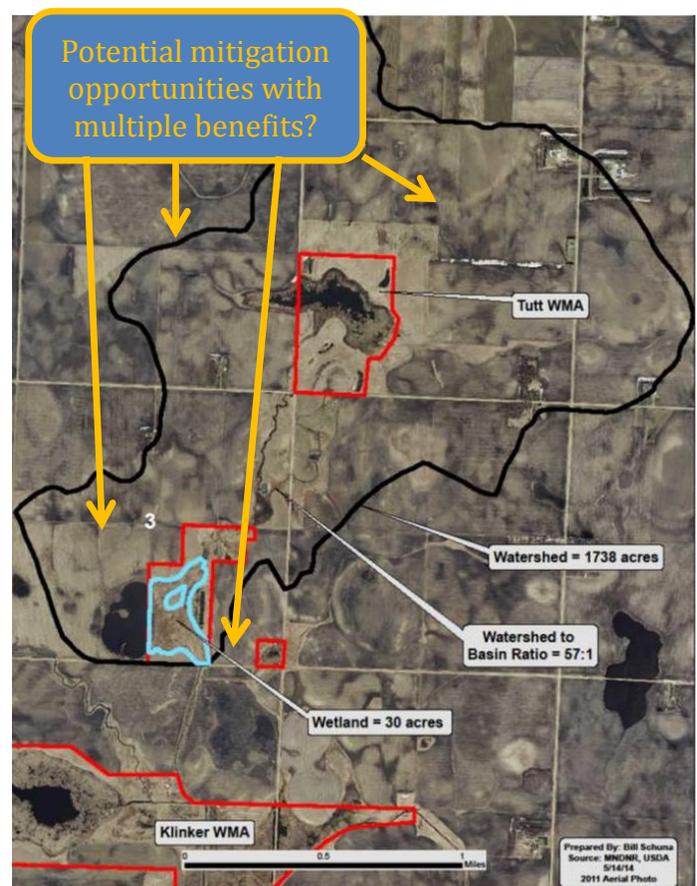
The debate over the value of wetlands, and their resulting drainage, has been a significant water issue since Minnesota gained statehood in 1858. Today, most wetlands are afforded some level of protection under State or Federal law. Those laws recognize that there are some instances where unavoidable wetland impacts occur, and make sure that when this happens the wetland losses are replaced by the establishment of other wetland areas of at least equal public value (aka “mitigation”). On paper it sounds relatively easy, but the reality is that the successful restoration and creation of wetlands is very difficult.

Wetlands are valuable because they provide water quality improvement, groundwater recharge, wildlife habitat, and many other functions. To be successful, a wetland mitigation project must restore lost functions of a wetland, not just wetland area. Because of their complexity, wetland mitigation project success has historically been mixed. Federal rules and state changes to the Wetland Conservation Act (WCA), including new changes currently under consideration by the State Legislature, have been developed to improve wetland mitigation outcomes.

Understanding the factors that affect wetland mitigation project viability and success is key. These factors help improve the targeting of projects, maximizing outcomes of wetland functions and sustainability, and helping us establish a system that is more likely to achieve intended results.

In the past, wetland mitigation projects often focused primarily on factors within the wetland boundary – including soils, vegetation and hydrology. We have learned that it’s the factors occurring outside the wetland boundary that often have the greatest influence on wetland function and sustainability. For example, is the wetland surrounded by cropland? Is it adjacent to a Wildlife Management Area or other wildlife habitat? What is the contributing watershed area and has it been changed by drainage or development? Each site will have a different set of factors to consider.

Understanding and weighing these factors can help find a good site, but it still doesn’t mean the site is viable. What if the landowner isn’t interested, or views wetland banking as too risky compared to other options? What if the restoration will affect a neighboring landowner? What if an existing easement prevents the establishment and protection of the site for wetland mitigation? What if upstream drainage rights prevent restoration of the wetland? These are just a few examples. There are multiple factors - technical, administrative, logistic, etc. - that affect wetland mitigation project viability.

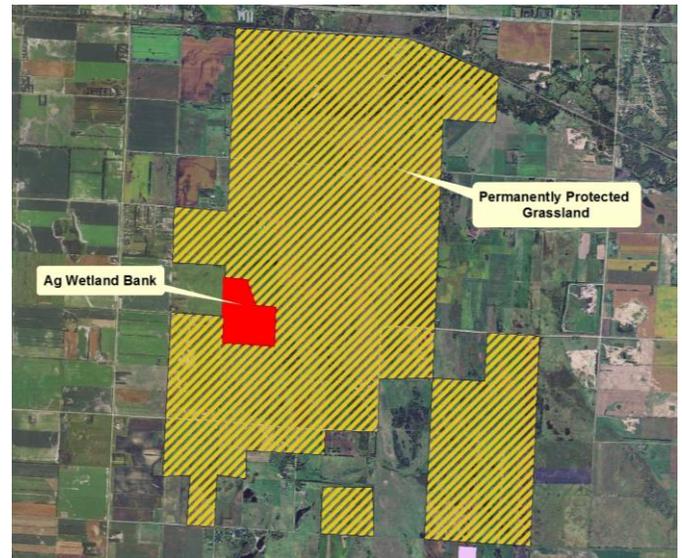


One possible example of a wetland mitigation targeting process that considers other resources and bigger picture factors beyond the wetland boundary.

Finding a wetland mitigation opportunity that will sustainably restore wetland functions within a broader landscape perspective and can be done given timing, land ownership, drainage rights, and other “non-wetland” considerations is difficult. The stars really do have to align. No wonder success has been challenging for many past mitigation projects. So what can we do to increase our odds?

Improving wetland mitigation outcomes will require a new approach:

- 1) First, we need to better understand the factors discussed above and their effect on wetland function and sustainability. Think of it this way: Improving the water quality of a degraded lake will typically involve restoration projects outside of the lake’s boundary, but within its watershed. The same goes for most wetlands. Siting wetland mitigation projects in a landscape that gives it the best chance for long-term success, while understanding and addressing factors outside the wetland boundary that affect its ability to function, will result in better mitigation wetlands and multiple benefits to watersheds.
- 2) Second, we need to put the experts in charge of wetland mitigation. Wetland restoration and creation is very complicated and the science is continually changing and improving. Success requires expertise and experience in various components of wetland mitigation, including hydrology, vegetation, soils, engineering and construction, and administrative and legal issues. This is part of the rationale behind the “In-Lieu Fee” program authority currently under consideration by the State legislature.
- 3) Third, we need to put more effort into the proactive inventory and targeting of wetland mitigation opportunities. Waiting until wetland mitigation is needed and then picking the cheapest option from whatever landowners may be interested at the time isn’t enough. The same goes for the establishment of wetland banks. The establishment of high priority areas for wetland mitigation (also currently under discussion at the State legislature) is a significant first step forward in improving the targeting of wetland mitigation, working hand-in-hand with an In-Lieu Fee program to produce better mitigation outcomes.



The result of the proactive targeting of wetland mitigation – a high quality wetland within a landscape that confers multiple benefits and long term sustainability. This wetland bank site provides the missing piece of the puzzle to this complex of over 7,000 acres of protected native grassland and wetlands.

Each of the three parts to this new approach will involve numerous sub-components, and will take staff, expertise, and time to implement. It’s a big change, but it’s the right approach to meet both wetland and landowner needs. The goal of wetland mitigation is not just to establish a wetland. It’s to establish the right wetland in the right spot that does the right things for the greatest public value.